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## A NEW SPECIES OF THE GENUS *CHOROTYPUS* SERVILLE, 1838 (ORTHOPTERA: CHOROTYPIDAE) FROM VIETNAM

S. Yu. Storozhenko

*Federal Scientific Center of the East Asia Terrestrial Biodiversity, Far Eastern  
Branch of the Russian Academy of Sciences, Vladivostok, 690022, Russia.  
E-mail: storozhenko@ibss.dvo.ru*

**Summary.** *Chorotypus vietnamensis* Storozhenko, **sp. n.** is described from Vietnam. New species differs from all congeners by absence of a large lobe at the basal third of hind tibia. Subfamily Chorotypinae is recorded in Vietnam for the first time.

**Key words:** Orthoptera, Chorotypidae, Chorotypinae, Chorotypini, taxonomy, new species, South-East Asia.

**С. Ю. Стороженко. Новый вид рода *Chorotypus* Serville, 1838 (Orthoptera: Chorotypidae) из Вьетнама // Дальневосточный энтомолог. 2017. N 344. С. 1-6.**

**Резюме.** Из Вьетнама описан *Chorotypus vietnamensis* Storozhenko, **sp. n.** Новый вид отличается от всех известных видов рода отсутствием крупной лопасти в базальной трети задней голени. Подсемейство Chorotypinae впервые указывается для фауны Вьетнама.

### INTRODUCTION

The family Chorotypidae Stål, 1873 is divided in six subfamilies distributed in Oriental region and tropical Africa (Rowel & Perez-Gelabert, 2006; Cigliano *et al.*,

2017). Three genera of the subfamilis Erianthinae Karsch, 1889 and Eruciinae Burr, 1899 have been recorded from Vietnam (Descamps, 1975; Ingrisch & Willemse, 1988; Kim & Pham, 2014). Subfamily Chorotypinae (with a single tribe Chorotypini) consists of 8 genera distributed in Sri Lanka, India, Malaysia, Indonesia, and western and central regions of tropical Africa (Cigliano *et al.*, 2017). At present, eight species of the genus *Chorotypus* Serville, 1838 are known, namely *Ch. fenestratus* Serville, 1838 (type species of the genus by monotypy) from India; *Ch. saussurei* C. Bolívar, 1930 from Peninsular Malaysia (Perak); *Ch. brunneri* (Kirby, 1910), *Ch. ameliae* C. Bolívar, 1930, *Ch. servillei* C. Bolívar, 1930 from Malaysia (northern Borneo), *Ch. haani* Brunner von Wattenwyl, 1898 from Indonesia (southern Kalimantan); *Ch. biemarginatus* Brunner von Wattenwyl, 1898 and *Ch. pusillus* Brunner von Wattenwyl, 1898 from Indonesia (Java) (Serville, 1838; Brunner von Wattenwyl, 1898; Kirby, 1910; Bolívar, 1930). A new species of the genus *Chorotypus* was collected in the southern Vietnam by L.N. Anisyutkin and A.E. Anichkin. This species is described below. The holotype of the new species is deposited in the collection of Zoological Institute, Russian Academy of Sciences (St. Petersburg).

## DESCRIPTION OF NEW SPECIES

### *Chorotypus vietnamensis* Storozhenko, sp. n.

Figs 1–10

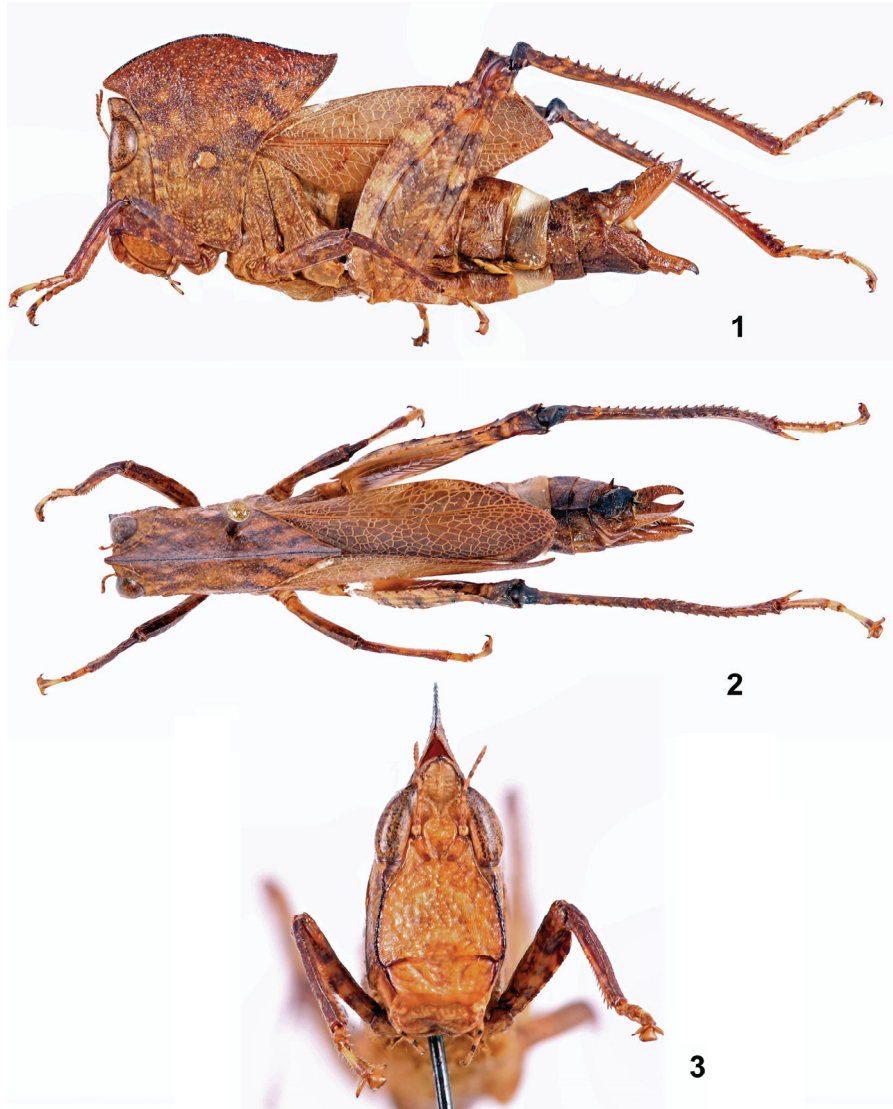
**MATERIAL.** Holotype: ♀, **Vietnam:** Binh Phuoc Province, 13 km NE Bu Gia Map village, Bu Gia Map National Park, 12°11'37" N, 107°12'21" E, 18-31.V 2011, coll. L.N. Anisyutkin & A.E. Anichkin. Paratype: 1 ♀, the same label as in holotype.

**DESCRIPTION.** Female. Body compressed, medium-sized for genus.

Head vertical (Fig. 1), completely covered by pronotum in dorsal view (Fig. 2). Face incurved; lateral sides of face, in frontal view, with almost parallel and finely serrated carinae (Fig. 3). Frontal ridge low, sulcate in dorsal part and provided here by small median carina; ridge between antennal grooves again distinct and widely sulcate, but obliterated below the base of antennae (Fig. 3). Fastigium of vertex short triangular, distinctly protruding above eyes in lateral view; dorsally fastigium with distinct anterolateral and median carinae; temporal foveolae absent. Eyes narrowly oval; vertical diameter of eyes 2 times as horizontal diameter. Antennae filiform, 14-segmented; short, 0.6 times as long as fore femur; middle segments (7–9th) 1.8–2.1 times as long as wide; Brunner's organ present. Antennal grooves situated between middle of eyes (Fig. 3).

Thorax. Pronotum in dorsal view narrow; anterior margin of pronotum triangle near median carina and reaching apex of fastigium of vertex; posterior margin pointed and almost reaching the middle of hind femora (Fig. 2). Median carina of pronotum in lateral view arch-like, not cut by transverse sulci (Fig. 1). Lateral carinae absent. Cervical membrane without sclerotized plates. Prosternal process absent. Mesosternal lobes with oblique inner sides; mesosternal interspace trapezoidal, near the middle it 1.1 times as broad as mesosternal lobe (Fig. 4). Metasternal lobes separated; metasternal interspace triangle.

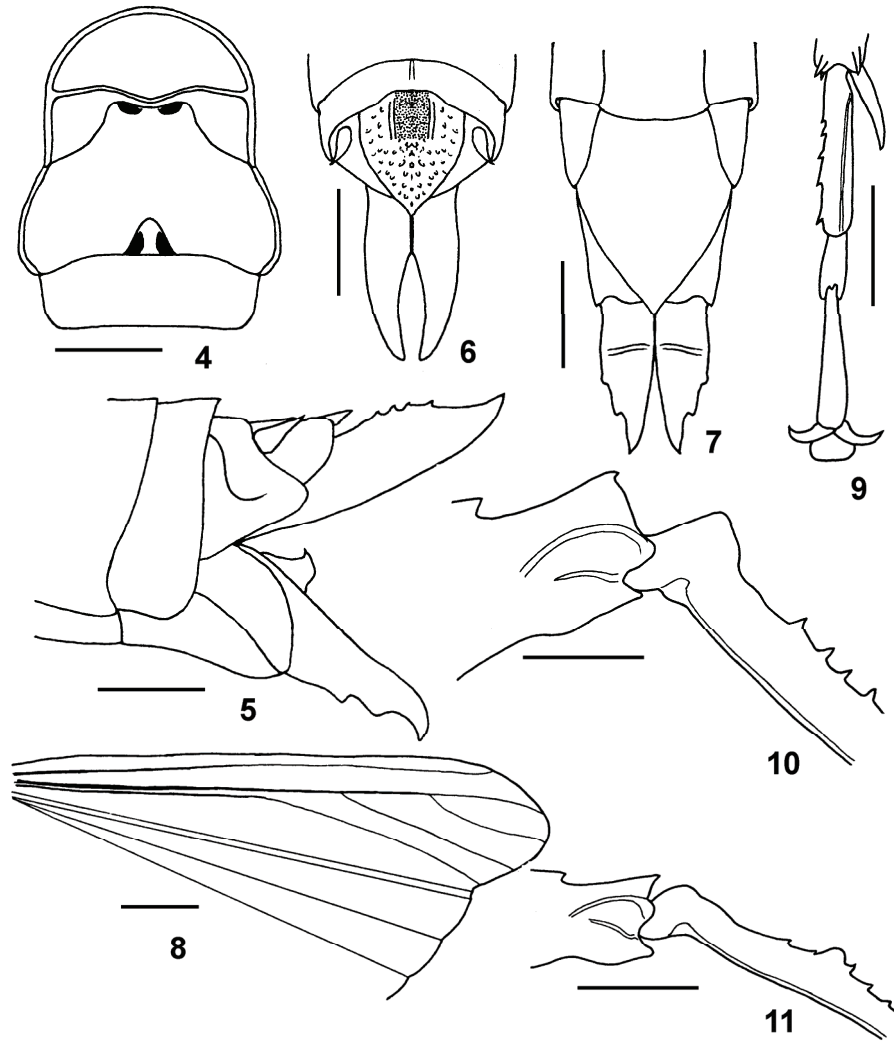
Wings. Tegmina long, with narrowly rounded apex; 2.9 times as long as wide (Fig. 1). Anterior margin of tegmen rounded; precostal field broad, reaching apical third of tegmen; costal field as broad as precostal one; medial field relatively narrow, without intercalate vein; cubital field 1.3 times broader than apical part of medial field. *Sc* simple, straight; *Rs* with 3 branches; *M* bifurcated, *CuA* obliterated before the



Figs 1–6. *Chorotypus vietnamensis* sp. n., female holotype. 1 – body, lateral view; 2 – the same, dorsal view; 3 – head, frontal view.

middle of tegmen. Hind wings almost completely covered by tegmina in rest position; apical part of hind wing rounded, not produced in the narrow lobule-like projection (Fig. 8).

Legs. Fore femora compressed, distinctly widened apically; upper and lower side of femora finely serrated. Mid femora elongated with almost parallel upper and lower



Figs 4–11. *Chorotypus* spp. 4–10 – *Ch. vietnamensis* sp. n., female holotype: 4 – sternal plate, ventral view; 5 – apex of abdomen, lateral view; 6 – the same, dorsal view; 7 – the same, ventral view; 8 – hind wing; 9 – hind left tarsus, dorsal view; 10 – hind knee and base of tibia, lateral view; 11 – *Ch. haani* Br.-W., the same, male (Indonesia: Kalimantan, Balikpapan City). Scale bars = 2 mm.

sides. Upper side of fore and mid tibia sulcate. Fore and mid tarsi 3-segmented; arolium large. Hind femora strongly compressed, stout, 2.7–2.8 times as long as wide. Upper side of hind femora with 9 teeth including an apical one; lower side finely serrated; area between upper outer and lower outer keels with irregular sculpture; outer ventral genicular lobes with straight lower side (Fig. 1). Hind tibia with 21 outer and 18–20 inner spines; outer spines smaller and regularly arrangement on whole tibia; inner spines larger and near the middle of tibia grouped in pairs; basal third of tibia without large outer lobe (Fig. 10). Inner dorsolateral spur of hind tibiae long, gentle surpassing 1/3 of first tarsal segment; other apical spurs short (Fig. 10). Hind tarsi 3-segmented; outer dorsal margin of first tarsal segment toothed on whole length, inner margin unarmed; both claws equal in length; arolium large, reaching apex of claws (Fig. 9).

Abdomen. Tympanum absent. 10th tergite without furculae. Supra-anal plate triangular, with pointed apex and distinct longitudinal median groove (Fig. 6). Paraprocts shorter when supra-anal plate. Cerci gently incurved apically in dorsal view; in profile cerci conical, with pointed apices, 1.9–2.1 times as long as wide near the base. Subgenital plate elongated, with triangularly pointed posterior margin (Fig. 7). Valves of ovipositor long and narrow; length of upper valve 3.3 times its maximum width; length of lower valve 4.3 times its maximum width. Dorsal side of upper valve with 4–5 small teeth; ventral side of lower valve with 2 large teeth (Fig. 5). Inner valves very short, broad near the base and pointed apically.

COLORATION. Body brown. Occiput and vertex blackish brown; face light brown, lateral sides of face black; eyes dark brown; genae blackish brown; antennae brown. Pronotum brown with indistinct light brown marks; dorsal margin of median carina black; lateral lobes of pronotum brown with small light spot (holotype) or completely brown (paratype). Tegmina brown. Hind wings blackish brown. Fore and mid legs blackish brown with indistinct light brown marks. Outer side of hind femora dark brown with four vertical light brown stripes; inner side light brown with 2–3 vertical blackish stripes in apical third. Hind tibiae blackish brown; tarsal segments light brown. Tergites brown; sternal plate and sternites light brown with small dark marks. Supra-anal plate, cerci and subgenital plate blackish. Paraprocts brown. Valves of ovipositor brown, with blackish apices.

Male unknown.

MEASUREMENTS. Length of female body (from anterior margin of head to apex of subgenital plate) 27.5–28.0; antenna 3.5–3.7; pronotum 13.0–14.2; tegmen 16.2–16.9; hind wing 14.5–14.7; fore femur 5.5–5.8; mid femur 5.0–5.2; hind femur 14.8–16.0; hind tibia 15.4–16.5; ovipositor 5.8–6.2 mm.

DIAGNOSIS. The new species differs from all congeners in absence of the lobe at the basal third of hind tibia (Fig. 10) while in other species such lobe is large and usually provided by spines (Fig. 11).

DISTRIBUTION. Vientam: Binh Phuoc Province.

ETHYMOLOGY. The new species is named after the type locality.

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